

Serial No.: 10/807,266
Docket No.: 101-1018
Amendment dated June 18, 2008
Reply to the Office Action of March 19, 2008

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of displaying EPG information, the method comprising:

displaying an electronic program guide (EPG) background screen having a main PIG screen and a plurality of sub PIG screens to display multi-picture-in-guide (PIG) information if an EPG mode for a current channel is requested;

detecting the EPG information on the current channel to display in texts on the EPG background screen, displaying tuned moving pictures of the current channel on the main PIG screen while sequentially detecting the EPG information for other channels, capturing pictures from the other channels, and displaying the detected EPG information in texts on the EPG background screen and displaying the captured pictures as still pictures on the sub PIG screens; and

whenever a channel is selected among the displayed EPG information as a new current channel, tuning the new current channel and updating the main PIG screen with turned moving pictures of the new current channel and the sub PIG screens with the captured pictures of non-selected channels and a captured picture of the previous current channel.

2. (Original) The method of claim 1, wherein the operation of tuning the channel and updating the main and sub PIG screen channels comprises tuning other channels not selected sequentially to update the sub PIG screens.

3. (Original) The method of claim 1, wherein the operation of tuning the channel and updating the main and sub PIG screen channels comprises tuning a channel indicated by a cursor to display moving pictures of the channel on the main PIG screen.

4. (Original) The method of claim 1, wherein the operation of detecting EPG information on the current channel comprises:

detecting the EPG information for the current channel, displaying the EPG information for the current channel on the EPG background screen, and displaying video signals of the current channel on the main PIG screen presented in the EPG background screen;

tuning other channels sequentially from a channel map in which a plurality of the other channels is stored, detecting EPG information of the tuned other channels, capturing pictures of the tuned other channels, displaying the detected EPG information in texts on the EPG background screen, and displaying the captured pictures in still pictures on the sub PIG screen.

5. (Currently Amended) A digital broadcast receiving system which receives transport streams with electronic program guide (EPG) information, the digital broadcast receiving system comprising:

a multi tuner which tunes each broadcast signal of channels in the form of the transport streams;

a de-multiplexer which de-multiplexes the tuned broadcast signal into a video, an audio and the EPG information;

an image processor which performs image processing on the de-multiplexed broadcast signal from the de-multiplexer;

a picture-in-guide (PIG) processor which constructs a multi PIG screen having a main PIG screen and a plurality of sub PIG screens, and a program information screen in the form of a table, using the EPG information;

a display unit which displays video signals output from the image processor and the PIG processor; and

a controller which controls in an EPG mode video signals of a selected channel of the program information screen to be displayed on the main PIG screen, controls still pictures of either non-selected channels of the program information screen to be displayed on the sub PIG screens, and updates information on the main PIG screen with video signals of the selected channel and information on the sub PIG screens with the video signal of the non-selected channels of the program information screen by a channel selection from the EPG information displayed in the display unit.

6. (Original) The system of claim 5, further comprising a key input unit which

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allows a user to select the EPG mode and a desired channel from the displayed EPG information as the selected channel.

7. (Original) The system of claim 5, further comprising a memory which stores the EPG information and the still pictures from the controller.

8. (Currently Amended) A recording medium encoded with codes readable as a program by a computer to implement a method of generating (EPG) information to be displayed in an EPG background screen in an EPG mode in a display apparatus, the method comprising:

forming a main PIG screen on a multi-PIG screen of the EPG background screen to display a moving picture of a first channel;

forming a sub PIG screen on the multi-PIG screen of the EPG background screen to display a still picture of a second channel; and

forming a sub screen on the multi-PIG screen of the EPG background screen to display channel information of the EPG information in text; and

Selecting the second channel for the main PIG screen from the displayed EPG information, tuning the selected second channel and updating the main PIG screen with a moving picture of the second channel and the sub PIG screens with a moving picture of the first channel.

9. (Original) The recording medium of claim 8, wherein the method further comprises generating the moving picture of the first channel and the still picture of the second channel to be displayed in the main PIG screen and the sub PIG screen of the multi-PIG screen, respectively.

10. (Original) The recording medium of claim 8, wherein the method further comprises generating channel information of the EPG information to be displayed in the sub-screen of the EPG background screen.

11. (Original) The recording medium of claim 8, wherein the channel information includes information about the first and second channel and other channels.

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12. (Original) The recording medium of claim 8, wherein the method further comprises generating a cursor to be displayed on the EPG background screen to allow a user to select one of the second channel and another channel displayed on the sub PIG screen and the sub screen, respectively.

13. (Original) The recording medium of claim 8, wherein the method further comprises:

generating the moving picture corresponding to the selected one of the second channel and another channel to be displayed in the main PIG screen; and

generating the still picture corresponding other channel than the second channel to be displayed in the sub PIG screen.

14. (Currently Amended) A method of generating (EPG) information to be displayed on an EPG background screen in an EPG mode in a display apparatus, the method comprising:

forming a main PIG screen on a multi-PIG screen of the EPG background screen to display a moving picture of a first channel;

forming a sub PIG screen on the multi-PIG screen to display a still picture of a second channel; and

forming a sub screen on the multi-PIG screen to display channel information of the EPG information in text;

Selecting the second channel for the main PIG screen from the displayed EPG information, tuning the selected second channel and updating the main PIG screen with a moving picture of the second channel and the sub PIG screens with a moving picture of the first channel.

15. (Original) The method of claim 14, further comprising:

generating the moving picture of the first channel and the still picture of the second channel to be displayed in the main PIG screen and the sub PIG screen of the multi-PIG screen, respectively; and

generating channel information of the EPG information to be displayed in the sub-screen

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of the EPG background screen.

16. (Original) The method of claim 14, further comprising:
generating a cursor to be displayed on the EPG background screen to allow a user to select one of the second channel and another channel displayed on the sub PIG screen and the sub screen, respectively.

17. (Original) The method of claim 14, further comprising:
generating the moving picture corresponding to the selected one of the second channel and another channel to be displayed in the main PIG screen;
generating the still picture corresponding other channel than the second channel to be displayed in the sub PIG screen; and.
generating channel information of the EPG information to be displayed in the sub-screen of the EPG background screen.

18. (Currently Amended) An apparatus to generate (EPG) information to be displayed on an EPG background screen in an EPG mode in a display apparatus, comprising:
a PIG processor to form a main PIG screen on a multi-PIG screen of the EPG background screen to display a moving picture of a first channel, a sub PIG screen on the multi-PIG screen of the EPG background screen to display a still picture of a second channel, and a sub screen on the multi-PIG screen of the EPG background screen to display channel information of the EPG information in text, and to select the second channel for the main PIG screen from the displayed EPG information, to tune the selected second channel and to update the main PIG screen with a moving picture of the second channel and the sub PIG screens with a moving picture of the first channel.

19. (Original) The apparatus of claim 18, further comprising:
a demultiplexer to generate the moving picture of the first channel and the still picture of the second channel to be displayed in the main PIG screen and the sub PIG screen of the multi-PIG screen, respectively, and to generate channel information of the EPG information to be displayed in the sub-screen of the EPG background screen.

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20. (Original) The apparatus of claim 19, further comprising:
a controller to generate a cursor to be displayed on the EPG background screen to allow a user to select one of the second channel and another channel displayed in the sub PIG screen and the sub screen, respectively.

21. (Original) The apparatus of claim 20, further comprising:
a controller to control the PIG processor and the demultiplexer to generate the moving picture corresponding to the selected one of the second channel and another channel to be displayed in the main PIG screen, to generate the still picture corresponding other channel than the second channel to be displayed in the sub PIG screen, and to generate channel information of the EPG information to be displayed in the sub-screen of the EPG background screen.

22. (New) A method of displaying EPG information, the method comprising:
displaying an EPG screen having a channel map with a plurality of channels, a main PIG screen to display a moving picture of one of the channels of the channel map, a plurality of sub PIG screens to display still pictures of other ones of the channel map; and
selecting one of the other ones of the channel map; and
replacing the main PIG screen with a moving picture of the selected one of the other ones of the channel map, and the sub PIG screen with the still pictures of the one of the channels and the other ones of the channel map except the selected one of the other ones of the channel map accordingly the selection of the one of the other ones of the channel map.